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ABSTRACT

Eighty-eight of the State's school districts were surveyed to discover (1) the reasons that prompted district school boards to organize a middle school, and (2) the characteristics of middle schools implemented in the Pennsylvania middle schools. The response to the study revealed that the reasons for initiating a middle school are multidimensional and that a concept of the middle school was the most significant single factor. However, influential groups (administrators), a precipitating event (a study report, etc.), a strong personality, a problem situation, and general predisposing factors (overcrowding) entered into the reasons for the decisions. The results of the questionnaire and the personal interviews indicate that attempts are being made to implement a developmental concept of a middle school in up to 75 percent of operating middle schools. Respondents state that one problem is the lack of adequate teacher preparation and that teacher training should emphasize the use of technical skills for instruction, the use of media, and the development and use of new curriculums appropriate for use in a developmental school. (Author/MLF)

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Reasons for Developing Middle Schools in Pennsylvania and the Implemented Characteristics

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INTRODUCTION

In 1964, there were 3,364 junior high schools in the United States (Gruhn, 1967). With grades 7, 8 and 9, this was the most popular type of school with principals and state department representatives. But a change is underway in concepts and preferences to some form of middle school organization, and the middle school is now viewed by some as an alternative to the junior high school plan of organization (Compton, 1969). This trend has increased because junior high schools have tended to become little high schools rather than a bridge between elementary and senior high schools (Tobin, 1968).

Middle schools have grown rapidly in number. There were 499 reported in the nation in 1965-66 (Cuff, 1967), and this number increased to approximately 1,100 in 1967-68 (Alexander, 1968).

In the state of Pennsylvania, 26 school districts operated middle schools in 1967, with 55 in planning stages (Kohl & Jones, 1968). In 1970, this survey identified 61 districts that were operating middle schools, with about 27 in advanced stages of planning.

Pumerantz (1969) surveyed state departments of education in 1968 to determine the extent to which states have officially recognized the middle school concept. In 1967-68, only Connecticut had legislation defining the middle school. Only five states recommended or endorsed middle schools. Rhode Island reported a study toward developing a state policy. Minnesota proposed a legal definition in 1969. For the most part, the survey showed that states have failed to address themselves to the middle school concept, presumably a passive role is assumed until

overtures are made by school districts. Should departments of education act to establsih policy by officially recognizing the middle school and/or propose a statutory definition be given the middle school concept? Should the states influence growth by legally defining the middle school or by recommending the concept?

A wide variety of problems and difficulties is presented to state departments of education through the introduction of the middle school type of organization. In Pennsylvania, two kinds of public schools are defined by law: elementary and secondary. Is it desirable to define the middle school legally as a distinct type of school organization? What steps are needed in regard to teacher certification? What policies are needed for instructional and facilities reimbursements? What policies are needed regarding facilities and program standards?

THE PROBLEM

School districts of the state were surveyed with a questionnaire designed to answer the question "What are the reasons that district school boards had for organizing a middle school?"

A second questionnaire was developed to answer the question "What characteristics of middle schools were implemented in the Pennsylvania middle schools?"

RESEARCH DESIGN

To construct questionnaires, the first step was to identify from research reports the dimensions found in other investigations.

Typical of research findings are those of Cuff (1967), who reported that the middle school emerged for four reasons: increased enrollment, pressure to restore the four-year high school, criticisms of the junior high and integration. Alexander's survey results support these findings. A survey of 1,101 middle schools indicated that middle schools do not differ much from predecessor schools in organization or program. An improved school for learners between childhood and adolescence has yet to be realized (Alexander, 1968). The four dimensions of Cuff are essential for the Form 1 questionnaire.

Initiation and development of middle schools has been guided by a variety of models, e.g., Alexander, Eichhorn and Williams. But Bough (1969) warned that a junior high school staff might adopt any or all of Alexander's or Williams' models with hardly a break from the past. Jennings (1967) complained that a middle school is a hobby horse that is going nowhere. It manipulates quantitative matters like grade organization patterns but

fails to deal with essentials that center around developing in children a healthy self-concept, a mature personality, citizenship skills and knowledge and attitudes that are significant for living. Also it was claimed the key to better education does not lie in slicing the pie differently but in altering classroom practices, developing a curriculum and preparing a competent staff.

The concept of the middle school is relatively undeveloped and chaotic in the literature. Havighurst (1968) wrote in terms of realizing developmental tasks. In a similar vein, Curtis (1968) suggested that the emphasis in elementary schools should be on basic skills, in high school it should be on specialization in a subject oriented curriculum, but in the middle school it should be on developing self-awareness, aiding school adjustment and providing exploratory experiences in subject matters that are studied more intensively at high school levels. Grooms (1967) has an excellent discussion of the concept of a developmental school. These are only a few samplings of the larger problems and discussions that involve the concept with which a middle school is implemented.

The Pennsylvania Department of Education published The Middle School (1969, 1971) which contains a well developed concept of the middle school. Those who are interested in developing middle schools should consult this helpful publication.

When a school board decided to initiate a middle school, was this decision based upon a particular concept which enlisted the interest and support of the school board? If so, then what was the nature of the concept and the middle school that developed from that decision? The

concept of the middle school was an essential dimension of the Form 1 questionnaire, factors in decision to implement the Middle School, and it was the basis for the Form 2 questionnaire, Characteristics of the Middle School.

PROCEDURES

Helpful guidance was furnished by Goode and Hatt (1952), who were the source of much of the technical guidance upon which the work was based. Among essential principles that were used were the following:

1. Every item on the questionnaire constitutes a hypothesis or part of one.
2. Every dimension of the decision must be included in the instrument.
3. General predisposing factors, particular predisposing factors and precipitating events are useful dimensions with which to break down the question, "Why."
4. Simple questions come first, including the "sieve" questions that serve to identify whether the school is a middle school.
5. The instrument must be short and follow a unified logical progression.

These principles were used to construct the instruments that were used in the study.

The first three questions of Middle School, Form 1, were formulated as sieve questions, beginning at the logical origin, the beginning of planning and dealing with a simple question of fact that would be so well known that response would usually need no inquiry.

The balance of the questions was formulated to obtain information that was relevant to alternative hypotheses. The following hypotheses were represented:

A publication stimulated the decision.
Key individuals or groups stimulated the decision.
A particular event stimulated the decision.

A powerful or influential individual stimulated the decision.
The school district acted in order to solve some problems.
General predisposing factors underlay the decision of the board.
Particular predisposing factors underlay the decision of the board.
Grade organization change proposals underlay the decision.
Hindrances inhibited the decision of the board.

A copy of Form 1 is included in Appendix B.

In a similar manner, the questions of Middle School, Form 2, Characteristics of the Middle School, were formulated by analysis of changes that might be anticipated in facilities, programs, teaching methods, inservice training, etc. Is there any qualitative or quantitative change through the implementation of the middle school? In what areas are there changes? Are the changes confined to organizational and administrative matters or is there implementation of a developmental concept of a middle school? The Form 2 questionnaire is contained in Appendix B.

Both Form 1 and Form 2 are free response, self-report instruments. Each item was answered by respondents as they chose and if they chose.

Tentative versions of the instruments were mailed to nine school district offices for a pretest of the instruments. There was a telephone follow-up when the instruments were not returned.

School district offices were visited by the investigator for a detailed discussion of the responses and the items. The interviews were helpful to identify ambiguous, unclear items and, in some cases to elicit additional items. The help is acknowledged of personnel from the following school districts: Owen Roberts, Lewisburg Area, McMurray,

Lebanon-Cornwall, Dallas, Pottstown, Pottsville, Bethel Park, Southern York, and Upper Perkiomen.

The instruments were revised on the basis of returns of the pretest and interviews with school district and Department of Education personnel. The help is acknowledged of personnel from the bureaus of Educational Statistics, Curriculum Development and Evaluation, General and Academic Education, School Administrative Services and Educational Research.

Using a mailing list that was prepared from information provided by the bureaus of Educational Statistics and Curriculum Development and Evaluation, 96 Form 1 questionnaires were mailed to school districts that were planning and operating middle schools. The list was revised on the basis of results of question 2 of Form 1 and eight districts were removed because they were not operating or planning middle schools. The revised list was used to mail 88 Form 2 questionnaires.

The dates of mailing for Form 1 and Form 2 were the last week of September and October.

Telephone follow-up was used with both instruments when returns were not received within an allotted time interval. The result was an excellent response record.

Personal visits were made by the investigator to selected school district offices. Most of the responses to Form 1 were examined in order to enable me to inspect middle school facilities, give personnel an opportunity to talk about their problems and ideas and to gain some personal contact with middle schools. The content of discussions included problems of teacher certification, facilities and instructional reimbursements, changes in program that were underway, lack of teacher

preparation for service in middle schools as noted in previous reports. Personnel of the school districts were most courteous and helpful.

To follow up the actual status of problems and difficulties that were brought up by school district personnel, the investigator interviewed Department of Education personnel who could state existing policies on those problems. Problems and suggestions that were obtained in field interviews were discussed and applicable policy was identified.

Altogether, the investigator interviewed approximately 40 persons in connection with the project.

The school districts that are planning middle schools but have not advanced to the stage of implementation were included in the study, not for the purpose of comparisons with school districts that are operating middle schools, but simply to obtain additional information. It was feasible to send questionnaires, and they have been through the process of decision upon initiating a middle school just as is true of the operating group, so they could presumably respond to Form 1 with almost as much definiteness as the operating group. They could be expected to encounter difficulties with Form 2, but even then some useful information could be obtained. Accordingly, the study was extended to include school districts that are planning middle schools, not with the idea of contrasting results of the two groups, but to obtain information that is relevant to the purposes of the study.

RESULTS

Due to exceptionally good cooperation from school district personnel, there was a 96.6 per cent return of Form 1 and 86.4 per cent return of Form 2.

The results of the Form 1 questionnaire are summarized in tables 1 and 2 for school districts that operate middle schools in tables 3 and 4 for school districts that are planning middle schools. (Please refer to Appendix A).

Reply to Form 1 by Administrators Operating Middle Schools

For school districts that are operating middle schools, nearly half (49 per cent) began planning in the 1966-67 and the 1967-68 school years. Nearly the same number of districts began operation in each of the last four years (about 14). Middle schools generally include the 6th, 7th, and 8th grades and about 25 per cent also include the 5th grade.

The results for the operating group are relevant to several hypotheses:

1. A publication stimulated the decision of the school board to implement a middle school.

   Seventy-nine per cent chose to respond to question four which dealt with this hypothesis. Only 26 per cent said that a publication was significant in the decision. Only one publication was mentioned more than once; this was Donald Eichhorn's book, The Middle School. Question eight was included to help respondents distinguish between a publication that stimulated decision and one that guided development after the decision was made. The question was included to make the response to question four more reliable. Only about one-half of the districts said they were guided in development by a publication.

2. The decision was stimulated by an influential group.

   Question five dealt with this hypothesis. The most influential group was administrators--93 per cent with school board members next--42 per cent and teachers last--30 per cent. The hypothesis was supported.

3. The decision was a result of a precipitating event.

   Thirteen per cent said there was no particular event that was significant. Twenty-nine per cent named a study report and twenty-two per cent recalled a significant personal recommendation. A significant speech was reported by three per cent and thirty-three per cent responded positively in the other category. The hypothesis was supported for 87 per cent of the respondents.

   Question 13 ranked the precipitating events. In rank order, these were population growth, the influence of a strong personality, the need to replace an old building and the exigencies of a racial plan. More than 50 per cent of the respondents chose to respond to this item but said that some other dimension served as a significant event or there was some other factor that was not included in the categories.

4. One strong personality stimulated the decision.

   Question seven dealt with this hypothesis. Eighty-one per cent of the nearly universal response to this question named a particular individual as the origin of the middle school. The hypothesis is supported.

5. The middle school was created to deal with a particular problem.

   Question nine dealt with this hypothesis. Only two problems brought both general response and high rank: the need for more classrooms (2.0) and the need for curricular reorganization (2.3). Salience (conspicuousness)* enters into the selection of categories and ranks that are assigned by respondents for the balance of the responses, i.e., the number of respondents (N) and the rank order decreases

*Salience is an essential psychological concept that is significant for interpretation of the results of the study. It means that subjects respond to the stimulus that is in the forefront of their consciousness, i.e., people respond to conspicuous items on the questionnaire and ignore inconspicuous items. Salience influences the response rate to items, i.e., the number of responses, and items that receive greater response rates are important to more respondents than items receiving less response.

simultaneously. Significantly, only about 30 per cent of school districts chose to respond to the category of racial integration, and they rated this problem last. The middle school is generally not initiated to deal with racial problems, though this can be a factor of modest importance in particular school districts. For almost all school districts that operate middle schools, the hypothesis is supported.

6. There were general predisposing factors to the decision of the school board.

   Question ten dealt with this hypothesis. Five significant factors were cited by respondents in the following rank order:

   a. overcrowding
   b. curriculum reorganization
   c. social reorganization
   d. rapid growth
   e. district reorganization

   Racial imbalance is cited, but at a lower rank. The hypothesis was supported.

7. There were particular predisposing factors in the decision of the school board.

   Question 11 dealt with this hypothesis. The category concerning the appeal of the middle school rationale elicited general responses (60) and a mean rank of 1.3. The particular predisposing factor to creating a middle school was a concept of the middle school. The hypothesis was supported.

8. A decision regarding alternative grade organization was a significant dimension in the decision.

   Question 12 dealt with this hypothesis. The salience of this item was unexpectedly low, as indicated by the low frequencies of responses to the categories (27, 36, 25, 9). The ranks that are assigned are high for a limited number of respondents. The favorite selection of grade organization is 5-3-4 (rank 1.3) for about 40 per cent of respondents. The hypothesis is not supported for the majority of school districts that operate middle schools, but it is a significant factor for a minority.

9. Hindrances inhibited the decision of the school board.

   Question 14 attempted to identify the hindrances that would inhibit a decision for implementing a middle school

and confront those who would make the attempt. Few school districts responded to the category of antagonism to the middle school concept. The principal hindrances stated were lack of funds, unsuitable facilities, lack of teacher preparation and size of school in that order. The first three stand together as essentially the same in importance and rank.

Reply to Form 1 by Administrators Planning Middle Schools

There was no intention of comparing school districts that operate middle schools with those who still remain in planning stages. Even though comparisons were not intended, results are reported simply as additional information.

Hypothesis one was not supported; 88 per cent responded negatively to the question whether a publication stimulated the development of the middle school.

Hypothesis two was supported; administrators were significant influences in the decision to implement a middle school in 96 per cent of responses.

Hypothesis three was not supported for the majority of school districts; 52 per cent reported there was not any particular stimulating event in deciding upon a middle school.

Hypothesis four was supported; a name of an influential individual was cited in 67 per cent of responses.

Hypothesis five was supported in the same degree and with the same rank order of factors as was observed with the operating group. The middle school was created to deal with specific problems.

Hypothesis six was supported in the same degree and with nearly the same rank order of factors as was observed with the operating group.

There were general predisposing factors to the creation of the middle school.

Hypothesis seven was supported in nearly the same degree and the same rank order of factors as was observed with the operating group. There was one particular predisposing factor in the planning of a middle school; this was the concept of the middle school.

Hypothesis eight received modest support in that a majority (15) of school districts responded to the first category with a rank of 1.3. A decision on grade organization entered into the creation of a middle school for the majority.

The principal hindrance is lack of funds (rank 1.3), followed by unsuitable facilities, lack of teacher preparation and size of school as a group. This result differs from that observed with the operating group.

Reply to Form 2 by Administrators Operating Middle Schools

The results are summarized in tables 5 and 6 for operating middle schools and in tables 7 and 8 for planning middle schools. Please refer to Appendix A for the tables.

For operating middle schools, a separate building was provided in 91 per cent of school districts. In most cases (62 per cent) this was not a new building that was built especially for this service; it was an existing building that was adapted. In the majority of school districts (54 per cent) the building previously housed other grades than those included in the middle school.

Considerable work has been devoted to curriculum revision; 55 per cent of respondents reported partial revision and 44 per cent

reported complete revision.

Departmentalization is general in four areas: social science, science, mathematics and language arts. It is partial in guidance (50 per cent) and other areas (44 per cent).

Substantial use is made of team planning for instruction in the same four subject areas: social science--69 per cent, science--64 per cent, mathematics--59 per cent and language arts--70 per cent.

Considerable use is made of audio and TV tape in all four major subject areas (Question Ten).

A principal feature of middle schools is the amount and variety of guidance services. All respondents reported programs for individual counseling, 84 per cent reported parent counseling and 58 per cent reported group therapy. The guidance counselor-student ratio is about 1:519 for the middle school in contrast to about 1:982 prior to the middle school (Question 18).

Grade-to-grade promotion is the general method of student progress in the middle schools (94 per cent). Only 14 per cent of respondents reported an ungraded organization (Question 24).

In preparation for the middle school operation, administrators were given an average 78 hours of in-service training (Question 18).

In-service training for teachers is general, 91 per cent reported programs before the middle school and 95 per cent reported it as true of the operating middle school. Question Eight indicates wide variety in programs: workshops--78 per cent, consultants--61 per cent, visitation--72 per cent and other--22 per cent.

The number and variety of student activities programs is large; respondents reported activities clubs—95 per cent, student-managed enterprises—66 per cent, photography—39 per cent, creative writing—52 per cent, acting—66 per cent and other—53 per cent.

Programmed instructional materials are used often in the four major subject areas (question 16).

A wide variety of special instructional facilities has been provided (question 9). These are almost too numerous to mention. There are the more common reading, language and learning laboratories, instructional materials centers, library seminars, teaching planning centers, audio-visual centers, etc. There are also special facilities cited like planetarium, earth and space laboratory, remedial gymnasium, library-media center, music centers and practice rooms, Project PLAN (computer-managed instruction K-12), mathematics laboratory, departmental reference centers, flexible instructional areas, computer assisted instruction terminals, swimming pool, family living centers, special education facilities, adaptive-corrective gymnasium, team teaching areas, etc. One-to-one remedial instruction is cited. Cassette recordings are used with strip film viewing. There are special instructional programs: scholar's program, occupational, technical and vocational education. A wide variety of laboratories is cited.

Middle school teachers are scheduled for about 60 minutes preparation time daily separate from duties like grading papers (question 12).

Supervisory personnel spend about five hours a week observing and evaluating teacher's performance in the classroom (question 13).

Responses to three questions, 22, 23, and 25 of Form 2 might furnish helpful guidance to school district personnel that desire to plan a middle school. These questions deal with the most successful features, the most difficult problems and the changes that were tried out and abandoned because they were deemed impracticable.

The most successful features that were cited include the following: social features, team teaching (interdisciplinary), team planning, separation from 9th grade, more child centered, small and large group instruction, development of individual personality and responsibility in 11-13 age group, guidance services, activities programs, French and Spanish instruction, new programs of shop, home economics, industrial arts, art music, etc. to this age group, opportunity to try new ideas that might benefit students, opportunity for curriculum development, flexibility in use of staff and curriculum, greater emphasis on pupil development, interdisciplinary learning packet development, flexible scheduling, nongraded curricula, departmentalized approach, better student attitudes and motivation, minimized social problems, actual provision for individual differences of pupils, guidance teams, ability grouping and regrouping, closer cooperation of staff, enriched and expanded program for sixth graders, elimination of stereotyped curriculum requirements, better pupil adjustment, differentiated program for 5th and 6th graders and departmentalized programs for 7th and 8th graders, etc.

The problems that were cited include: slow learners in 5th grade, adjustment of secondary faculty to middle school pupils, finding

time for teacher meetings and inservice training, teacher preparation and certification, differentiated reimbursement and related mandated differences on the state level, community insistence on interscholastic sports, local finances, innovating change in a traditional building, space, overcrowding, classroom aides, part-time teachers, getting teachers oriented to middle school philosophy, finding teachers suitable for middle school, placing the primary emphasis on pupil progress rather than on subject completion, finding certificated teachers in language arts and reading, finding certified guidance counselors, developing student responsibility in a flexible program, finding time for curriculum work, finding teachers that are trained for middle school work (not sufficiently diversified), motivation for and organization of independent study, luncheon and bussing, looked on by the Pennsylvania Department of Education as both elementary and secondary for instructional reimbursement, confusion in program approval, focus on learning rather than content, inflexibility of teachers, need for more large-group instructional areas, 5th grade may be too young for middle school, lack of instructional materials, innovative programs and personnel, keeping teachers within teams, scheduling and bussing problems, etc.

Changes that were tried out and abandoned included the following: homogeneous grouping, new reporting system to parents, nongraded organization, unsupervised lunch period, open lunch periods, foreign language in grades 6, 7, and 8, staggered lunch period, team teaching, longer activity periods, club programs, totally multitext, multimedia approach, homogeneous grouping in slow sections, strict departmentalization in grade

6, several versions of flexible scheduling and strictly intramural sports.

In the opinion of respondents, the middle school enjoys good acceptance. With parents, the mean rank of acceptance is 1.7, with middle school children it is 1.5, with faculty it is 1.5, with the school board it is 1.5 and the respondents own mean rank is 2.2.

Is there a qualitative or a quantitative change accomplished through the middle school? In what areas are the changes to be found? Are changes confined to organizational and administrative matters or is there a developmental concept of a middle school visible in the program and activities? What concept of the middle school underlies changes?

The replies to questions 7, 15, and 17 are relevant to these questions.

Question seven deals with the degree of change and its nature. If the concept of the middle school is a developmental one that aims to diverge from the kind of junior high school concept that results in a little high school, and it envisages a change from excessive use of the self-contained classroom of the primary grades, then responses to the categories of question seven are relevant. Substantial change from the elementary school is evident in the fact that only 28 per cent of respondents reported use of self-contained classrooms. But little progress toward a developmental school is evident in the facts that subject grades are used in 86 per cent of school districts and standardized achievement tests are used in 94 per cent of school districts

that operate middle schools. This picture is improved by the fact that 59 per cent reported use of attitude and interest tests, kinds of tests that have been largely ignored in schools until recently. Wide use is made of other kinds of reports of pupil progress (88 per cent). The middle schools are largely free from the use of the Carnegie unit; only eight per cent reported it use, so middle schools appear to be largely free from this unit that is often used in secordary schools. Intramural programs are used in 84 per cent and interscholastic athletics are reported in 47 per cent of school districts that operate middle schools.

Question 15 is relevant to the question of a developmental concept of a middle school. Do schools use developmental types of measures of pupil progress? Nearly two-thirds of the respondents reported evaluation of many areas of pupil development: attitudes toward courses--to per cent, attitudes toward school--48 per cent, attitudes toward college study--14 per cent, attitudes toward teachers--38 per cent, change in pupil self-concept--36 per cent, sociometry--31 per cent, motivation to learn--28 per cent and personality development--27 per cent. A developmental concept of the middle school is evident in these attempts at developmental evaluation.

Question 17 tells us something regarding the degree of change in the use of certain practices in contrast to their use prior to the middle school. Six per cent more districts reported the use of nongraded curricula, 62 per cent more reported use of flexible scheduling, 41 per cent more reported use of laboratory classrooms, four per cent more reported inservice training, eight per cent more reported curriculum development,

23 per cent more reported emphasis on pupil development, 14 per cent more reported teacher-pupil conferences, 13 per cent more reported guidance services.

Reply to Form 2 by Administrators Planning Middle Schools

As expected, administrators who were still planning middle schools experienced some difficulties in responding to several items. Most respondents indicated that they could not answer adequately certain portions. This was true because operation had not begun and experience had not been gained in the use of innovations. Accordingly, it was difficult to answer questions 22, 23 and 25. Data are limited regarding these questions. Nevertheless, due to the outstanding cooperation of the personnel useful information was obtained.

Departmentalization was general in the four major subject areas and it is partial in guidance (41 per cent) and in other areas (22 per cent).

Substantial use was reported of team planning for instruction in the four major subject areas (all at the 77 per cent level).

Considerable use was planned of audio and TV tape in all major subject areas.

Plans for guidance services were about the same as was true for the operating group. The counselor-student ratio for the planned middle school was about 1:500 in contrast to about 1:1300 at present.

Grade-to-grade promotion was planned in the majority of cases (65 per cent). Thirty per cent reported plans for an ungraded organization.

Curriculum revision was reported as partial by 50 per cent of the school districts that are planning middle schools and complete by 50 per cent.

Plans for inservice training of administrators were reported by only four respondents, and the average number of hours of training was 34 hours.

Inservice training for teachers was general; 77 per cent reported programs before the middle school but only 55 per cent reported programs for the middle school. Question eight indicated a wide variety of kinds of programs: workshops—64 per cent; consultants—55 per cent; visitations—59 per cent; and others—18 per cent. The number of hours for these activities ranged from 30 - 66.

Student activities programs were varied: activities clubs—77 per cent; student managed enterprises—41 per cent; photography—27 per cent; creative writing—36 per cent; acting—59 per cent and other—14 per cent.

Plans were reported to use programmed instructional materials only in language arts (nine per cent) and other—five per cent. Since this finding contrasted to the general use that is made in the operating middle schools, these data, like others that are cited in this section, probably only meant that planning was incomplete and a later phase will probably exhibit increased usage.

The list of special instructional facilities was much more brief with the planning group than it is with the operating group. Among the citations were the following: large group instructional areas, planetarium, remedial gymnasium, instructional materials center, a variety of laboratories, unified arts area, individually prescribed instruction, an Audion, open library, TV in every classroom, library instructional

materials center, teacher planning area and small group instructional areas.

Middle school teachers were reported to have an average of 54 minutes every day for preparation time apart from duties like grading papers.

Supervisory personnel planned to spend an average of seven hours a week observing and evaluating teachers' performance in the classroom.

In the opinion of respondents, the middle school enjoyed good acceptance. With parents, the mean rank was 2.2, with projected middle school children, the mean rank was 1.9, with faculty was 2.4, with the school board was 1.7, and the respondents own rank was 1.3. With the exception of the respondent's own opinion, these data reflect a somewhat lower level of acceptance than is true for the operating group.

Question seven dealt with the degree of change and its nature. Nine per cent of respondents reported use of the Carnegie unit, 36 per cent the use of interscholastic athletics, 64 per cent the use of subject grades, 86 per cent the use of standardized achievement tests, all suggesting adherence to the "little high school" concept. On the other hand, change was suggested in other aspects of the data: 91 per cent reported plans for an intramural program, 45 per cent reported plans to use the self-contained classroom, (a decrease from almost universal use in the primary grades), 64 per cent reported plans for use of attitude and interest tests, and 82 per cent reported they will use other reports of pupil progress.

The results of question 15 are relevant to a developmental concept of a middle school. Plans were indicated by 86 per cent of respondents to use developmental types of measures of pupil progress: attitudes toward courses--36 per cent; attitudes toward school--32 per cent; attitudes toward college study--five per cent, attitudes toward teachers--32 per cent; change in self-concept--18 per cent; sociometry--18 per cent, motivation to learn--14 per cent and personality development--23 per cent.

Question 17 tells us something about the degree of change in certain practices that has been planned. No change was reported in the use of nongraded curricula, 27 per cent more school districts reported flexible scheduling will be used with middle schools, nine per cent reported laboratory classrooms, 22 per cent fewer districts reported inservice training, nine per cent fewer districts reported curriculum development, nine per cent fewer reported emphasis on pupil development, four per cent fewer districts reported teacher-pupil conferences and nine per cent fewer districts reported guidance services. This is a picture of markedly less change for the planning group than for the operating group, but the data undoubtedly indicate simply that much remains to be accomplished in planning and implementation for many school districts.

Personal Interviews

The administrative staffs of five middle schools were interviewed in order to ask questions that were included in an interview guide and to give opportunities for personnel to reveal their insights

and experiences in personal interaction. (Please refer to Appendix B for a copy of the interview guide.)

Responses to the first four questions made it clear that a developmental perspective guides implementation. The feature that needed changed the most was the former curriculum, and the principal feature of the middle school is curriculum change. While much has been accomplished, it cannot be said that the staffs believe that the principal feature has been fully implemented. Some said the primary aims of their predecessors had been achieved, but the more advanced new aims of the successor were still in processes of development. Many felt that the primary task lay in "selling" the new concept to teachers and in training them for the new and broader tasks of the middle school. In one district, a new phase was begun in which teachers were required to formulate educational objectives as part of a larger project to prepare educational specifications. While there has been a year of progress, there was still much to be done in this project and in the development of new curricula with which to implement the specifications. A developmental perspective guides the work of implementation.

Most of the individuals who were interviewed emphasized a developmental concept toward pupils of the middle school. This emphasis took varied forms: individualization with curriculum change, individualization with nongraded organization and curriculum, a developmental approach to maturation of students and a program to deal with maturational matters, flexible approaches to curriculum matters and programs with

protests against what were viewed as unduly restrictive state regulations and increased emphasis upon counseling programs. A developmental perspective regarding the growth of pupils has become influential in the thinking of those who implement middle schools.

Ethnic imbalance has not been a large factor. The principal need areas were facilities and curriculum change. The middle school has coped effectively with the former while the latter had to viewed in developmental terms as already emphasized.

Several problems were identified in the course of personal interviews. The problems which were stated include the following:

1. Legal organizational structure of public education, finances and curriculum.

Legally, the laws of Pennsylvania provide for the state to organize education for two levels: elementary and secondary. Organization, finances and curriculum are structured in these two principal divisions. A middle school is three consecutive grades, usually the 6th, 7th, and 8th. But the results of interviews suggest that a new approach is needed. The middle school should not be considered as either an elementary or a secondary school nor as a hybrid. It should be considered as a separate division of public education and standards, program, buildings, curriculum, and finances should be developed separately. There is a different concept of middle schools, a developmental school that is in process of birth. This is a concept of considerable diversity, but it is one for which the middle school offers valuable opportunities for exploration, development and research. Accordingly, flexible standards should be tried out. A separate middle school division should

be considered in the organization of education and programs should emphasize achievement of educational objectives, management by objectives and evaluation in terms of these objectives.

State requirements were said to be too rigid and strict on requirements for facilities and room schedules, but undeveloped in areas that are of major significance, e.g., educational specifications.

Traditional perspectives on finances and curriculum should be changed, it was suggested. It would help school districts in the long run to adopt a separate cost analysis for middle schools so that costs could be analyzed separately for three divisions: elementary, middle and secondary schools. Then a realistic instructional reimbursement could be determined.

Separate standards and report forms are needed with which districts report to the Department of Education. It is not feasible to report adequately to the state regarding middle schools when administrators have to use forms that were designed for use with elementary and secondary schools. Middle schools are neither, so standards, report forms, finances and curriculum requirements should be changed using flexibility as the primary criterion.

2. Teacher training and certification.

Teachers need more than subject matter competence,it was suggested. They need technical skills with which to teach effectively with middle school children. They need to understand and be able to implement the middle school concept in the classroom and they need to be able to develop and use new media and curricula. They need to understand

pupil development in wider and deeper terms and be open to and ready for developmental programs. But colleges seem to be preparing teachers too narrowly. A major problem is the lack of teacher preparation for service in anything but the traditional subject-matter centered school.

Teacher certification was cited as a problem. A 6th grade child, it was asserted, cannot be restricted to elementary teachers. There is an urgent need to use teachers that are certified at the secondary level in order to provide courses in a unified arts program. It should be possible and legal to use secondary teachers down through the 6th grade level and elementary teachers up through the 8th grade. This kind of overlap would be helpful, it was suggested. In addition, disciplinary certification should be widened so that a teacher who is able to teach in one discipline, e.g., mathematics, could be used to teach in an instructional area, e.g., science area. This would help middle schools that have tried out a change from departmentalization in disciplines by organizing into instructional areas.

Another difficulty lies with what were said to be rigid state requirements regarding the length of the school day and year. Some districts would like to dismiss pupils at noon one day per month to provide inservice training for faculty, but thought there was no opportunity provided in the state regulations. The alternative, keeping teachers after regular hours, is difficult to do without getting into trouble in negotiations on salary and conditions. So flexibility is desired with respect to time requirements. Some districts would like to

meet the minimums in days and hours and be otherwise free to schedule programs for students, faculty, parents and community.

Some districts complained that requirements are so rigid on the number and kind of courses that have to be offered that it is difficult to describe and schedule a course. Moreover, they indicated some requirements could be met individually without making a formal place for a course in the schedule, e.g., a unit in industrial arts. But they said there is no opportunity to do this in the state regulations.

These comments were made in order to summarize the problems and difficulties that middle school administrators think are significant in their attempts to operate middle schools. To gain a balanced picture, leaders of the Department of Education were asked to state the policies that apply to these matters.

A number of Department of Education leaders were interviewed to ascertain the regulations that apply to the problems that were identified by middle school administrators.

The results of the interviews indicated a high degree of awareness of the problems with which middle school personnel are confronted. Many of the problems have been resolved through policies that have been tentatively formulated subject to careful review after experience has been gained in operation of middle schools.

An example of this is found in a tentative policy toward certification of middle school teachers. Since there are no programs in the colleges and universities for the preparation of middle school teachers, the policy has been formulated to permit superintendents to

use both elementary and secondary teachers provided they are certified. On the basis of this tentative policy, it would appear that school districts have all the flexibility now that is needed regarding problems of teacher certification. This is the position of the Pennsylvania Department of Education at this time.

Similarly, there is latitude in dismissing students early in order to provide in-service training for teachers. While regulations do provide for a five-hour day and a 25-hour week for grades 1 - 6, and a 5.5-hour day with a 27.5-hour week for grades 7 - 12, with the minimum number of hours per year respectively of 990, and 1,080, it is possible to obtain permission to change the pattern of hours when these requirements are met. School districts are permitted to submit a request by letter to the commissioner for this purpose, indicating that 990 hours are provided in the school calendar exclusive of the time off. School districts can expect approval of such requests when minimum requirements are met, so there would appear to be adequate flexibility in this matter.

Regarding state reimbursement for construction of middle school facilities, there is recognition of the problem at the state level, but the right policy is unknown at this time. The law provides for a reimbursement of $2,300 per elementary pupil and $3,000 per secondary pupil. These can be prorated if the middle school facilities are planned as a combination of both. There is an expressed recognition that it costs more to build a middle school facility than it does to build a traditional elementary school. Should the facilities reimbursement be increased? There is a recognition that this should be done, perhaps upon some utilization factor, but the level and formula are not worked

out at this time. The need was acknowledged for study of this problem.

Regarding instructional reimbursement, middle schools can be reimbursed as a combination elementary and secondary school if the middle school program was approved as a combination by the Bureau of Curriculum Development and Evaluation.

Regarding the organization of the middle school, changes in state laws would be required to redefine the divisions of public education if separate organizational status is desired for middle schools. The law does provide now for just two divisions, so a new law would be required to create a third division of a middle school and to redefine the elementary and secondary divisions.

There is considerable latitude in connection with curriculum problems. It is Department of Education policy (July 1, 1969) to exempt middle schools from the curriculum restrictions of the junior high schools if the program passes the preapproval processes. Districts are expected to describe planned courses in two or three paragraphs: what will be done at grade levels and how this will be implemented, e.g., by team teaching or departmentalized arrangements. A detailed course outline is not required. Descriptions of planned courses are controlled by the Regulations of the State Board of Education, Chapter 7, #7-123. This regulation requires a statement of objectives to be achieved, the content to be used to attain objectives, the expected levels of achievement and the procedures for evaluation. The 120 hours of the Carnegie unit is now used only as an approximate benchmark. Those who expect to plan a program should refer to the Regulations of the State Board of Education.

GENERAL ANALYSIS OF RESULTS

Summary of Form 1 Results

For what reasons did district school boards decide to implement a middle school. The results of the Form 1 questionnaire are revelant to this question.

The results of Form 1 with operating middle schools indicated that six hypotheses were supported and that six dimensions (variables) entered significantly into the decision to implement a middle school. The dimensions were influential groups, a precipitating event, a strong personality, a problem situation, general predisposing factors and a particular predisposing factor entered into the reasons for initiating a middle school. The reasons for deciding upon a middle school were multidimensional.

The most significant (highest rank) variables that were identified for each of these dimensions included respectively administrators, a study report, a name of an individual, need for more classrooms, overcrowding and the appeal of a concept of the middle school. These were the variables that interacted in some multidimensional fashion to precipitate the decision.

The use of free-response questions that required administrators to rank the factors that entered into this decision gives some information that helps to clarify the mechanism with which these dimensions interacted. The appeal of a middle school rationale was the variable operating in this interaction that elicited both general response and the highest rank (rank 1.3 with 60 responses). The alternatives are overcrowding in question 10 with rank 1.9 and 52 responses and population growth in question 13 with rank 1.7 and 48 responses. The meaning of these data is determined by the interpretation of the combination of salience and rank factors.

One effect of salience factors (general response to conspicuous stimuli) is that a stimulus that is important is responded to, while one that is deemed less important by the respondent is ignored. The meaning of salience factors is then that a questionnaire item to which there is general response is more important than one to which there is markedly less general response. Therefore, the most significant single factor is the one that elicited both general response and high rank, i.e., a concept of the middle school. This concept entered in some manner into the interaction of at least five other dimensions to cause a middle school to be initiated by school boards. This is the most general picture that is revealed by these findings, though others are not excluded.

How can these interpretations be integrated logically into a concept of the interaction of the five dimensions that elicited the decision for a middle school? The results suggest, but do not prove, that interaction of at least six dimensions occurred to elicit a decision for a middle school approximately as follows:

In general, there is a context of strong predisposing factors that emphasize needs for several kinds of reorganizations: social, grade, classroom, district. When an influential administrator (93 per cent) or school board member (42 per cent) who worked within this context and was looking for answers, read a publication or study report containing a concept of the middle school that both answered the needs and challenged him professionally as an educator, this served as a precipitating event for about 87 per cent of school districts.

Characteristics of Middle Schools Developed

What were the characteristics of the schools that were developed from these decisions to implement a middle school? The results of the Form 2 questionnaire were relevant to this question.

The general picture of these results is not one of drastic change, rather of developmental increase in the use of practices that might implement the concept of the middle school. The results of personal interviews with the staff of middle schools emphasized this developmental aspect; very few of the administrative staff felt they had arrived at any point of completion or fulfillment of what they were trying to do. Almost all emphasized repeatedly they were only at an early stage in their efforts to initiate a middle school and they were eager to talk about forthcoming phases in their plans.

These data are evidence for, but not conclusive proof of, both a qualitative and a quantitative change in the kind of a school. This is not so much an accomplished achievement as it is a transitional and developmental change toward a new kind of school. The concept that underlies this transition appears to be a developmental kind of middle school, i.e., a school that works for pupil development in many areas and dimensions, not just for a subject matter fact learner.

The results are quite similar for school districts that are still in planning stages. The first and most obvious difference between the planning and the operating group lies in the fact that about 82 per cent of the planning group are waiting for the completion of special facilities while only about 38 per cent of the operating group provided new facilities. The planning group waited for a new building, while the

majority of the operating group adapted an existing building.

The results of Form 1 for the planning group are similar to those for the operating group, but are lesser in degree. The rank of the category of the concept of the middle school was 1.5 with 24 responses. This is general response with slightly lesser rank than for the operating group. There is similarly a multidimensional interaction. The same dimensions and variables were identified, as with the operating group, but there was no precipitating event. In addition, grade organization change seems important to more districts in this group.

The results of Form 2 for the planning group are lesser in degree and kind. The data are evidence for both a qualitative and quantitative change in the kind of school. The indications of change are less in kind and degree, but it can be argued that this is only to be expected when plans are incomplete and implementation has not been attempted. Regarding the planning group, the findings of this report suggest that a change is underway to a developmental middle school, even though, in many school districts, there is still a long way to go.

SUMMARY

What are the reasons for school districts deciding to implement a middle school? In answer to this question, the results of the Form 1 questionnaire indicate that an interaction occurred with at least six significant dimensions.

Influential groups (administrators), a precipitating event (a study report, etc.) a strong personality, a problem situation, general predisposing factors (overcrowding) and a predisposing factor (a concept of the middle school) entered into the reasons for the decisions. The reasons for initiating a middle school are multidimensional.

The most significant single factor in this multidimensional interaction was a concept of the middle school, which appears to have entered somehow into a precipitating event for the decision.

The results of the Form 2 questionnaire and the personal interviews indicate that attempts are being made to implement a developmental concept of a middle school in up to 75 per cent of operating middle schools. The developmental concept is amorphous and undeveloped to a considerable degree so far as this instrument can discern, but it is clear that local school districts do have a developmental concept in view, and they are doing much work in many areas to realize it. Moreover, a developmental approach is taken toward their own efforts of implementation. Most of the individuals who were interviewed emphasized that they were still far from their goal and were taking many small careful steps, e.g., with faculty to train and win their support for the new concept.

A principal problem is the lack of preparation of teachers. Almost all districts that operate middle schools spend much time and money in highly varied programs of inservice training. Since there are no programs in colleges and universities for the preparation of middle school teachers, this problem is a severe handicap in the implementation of middle schools.

Changes are needed in the training of preservice elementary teachers to prepare them for service in middle schools. This training should emphasize the use of technical skills for instruction, the use of media and the development and use of new curriculua that are appropriate for use in a developmental school.

The results of interviews with school district and Department of Education personnel indicated there is substantial agreement that the problem of facilities reimbursement is unresolved. At the present time the middle school is reimbursed as an elementary school for those features which are applicable to the elementary level and as a secondary school for those features which are applicable to the secondary level. The question is not settled as to whether middle schools should be reimbursed by a special formula applicable to middle schools or completely as an elementary or secondary school.

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APPENDIX A

Table 1

Results, Form 1, Operating Middle Schools
Factors in Decision to Implement a Middle School

Item and Category	N	Per Cent
1. Year planning began	67	
1966-67	22	33
1967-68	11	16
1968-69	4	6
1969-70	2	3
Other	28	42
2. Year operation began	67	
1966-67	4	6
1967-68	11	16
1968-69	14	21
1969-70	15	22
1970-71	14	21
Other	9	13
3. Grade levels included	67	
Grade 5	17	25
Grade 6	64	96
Grade 7	66	99
Grade 8	65	97
4. Publication stimulated M.S.	58	
None	43	74
Publication	15	26
5. Influential group	67	
School board	28	42
Teachers	20	30
Administrators	62	93
Other	7	10
6. Stimulating event	72	
None	9	13
Speech	2	3
Recommendation	16	22
Study report	21	29
Other	24	33

APPENDIX A

Table 1 (continued)

Item and Category	N	Per Cent
7. Influential person	65	
None	12	19
Name given	53	81
8. Developmental publication or study	63	
None	30	48
Publication given	21	33
Study given	12	19

APPENDIX A

Table 2

Form 1, Rank of Factors Affecting Initiation of Middle School
School Districts Operating Middle Schools

Item and Category	N	Mean Rank*
9. Problems expected solved		
More classrooms	60	2.0
Curricular reorganization	63	2.3
Criticisms junior high	46	2.6
Restore high school	45	2.9
Racial integration	21	4.6
Other	14	2.0
10. General predisposing factors		
Overcrowding	52	1.9
Curriculum reorganization	63	2.2
Social reorganization	41	2.7
Rapid growth	38	3.0
District reorganization	11	3.3
Racial imbalance	16	4.8
Other	4	2.3
11. Particular predisposing factors		
Middle school rationale	60	1.3
Criticisms junior high	41	2.2
Middle school communication	35	2.8
Restore four-year high school	30	3.0
Other	15	1.7
12. Alternative grade organization		
5-3-4	27	1.3
4-4-4	36	1.8
6-3-3	25	1.8
6-6	9	3.8
Other	20	1.4
13. Precipitating event		
Population growth	48	1.7
Strong personality	32	2.3
Replace old building	21	2.3
Racial plan	9	3.2
Other	35	1.2

APPENDIX A

Table 2 (continued)

Item and Category	N	Mean Rank*
14. Principal hindrance		
Lack of funds	30	1.9
Facilities	35	2.0
Lack teacher preparation	36	2.1
Size of school	21	3.1
Antagonism M.S. concept	18	3.7
Other	14	1.5

*The computation of mean rank was done by summing the ranks assigned by the respondents and dividing by the number of respondents. There were thirty-two 1's, twelve 2's, seven 3's, six 4's, two 5's and one 6 assigned by 60 respondents. The mean rank is obtained by dividing the sum of ranks (117) by 60. 117 ÷ 60 = 2.0.

APPENDIX A

Table 3

Results, Form 1, Planning Middle Schools
Factors in Decision to Implement a Middle School

Item and Category	N	Per Cent
1. Year planning began	24	
1966-67	5	21
1967-68	9	38
1968-69	7	29
1969-70	1	4
1970-71	1	4
Other	1	4
2. Year operation began	25	
1970-71 (partial)	1	4
Other	24	96
3. Grade levels included	25	
Grade 5	8	32
Grade 6	25	100
Grade 7	24	96
Grade 8	23	92
4. Publication stimulated M.S.	25	
None	22	88
Publication cited	3	12
5. Influential group	25	
School board	10	40
Teachers	3	12
Administrators	24	96
Other	3	12
6. Stimulating event	25	
None	13	52
Speech	0	0
Personal recommendation	2	8
Study report	7	28
Other	9	36
7. Influential person	24	
None	8	33
Name given	16	67

APPENDIX A

Table 3 (continued)

Item and Category	N	Per Cent
8. Developmental publication or study	25	
None	16	64
Publication given	4	16
Study given	7	28

APPENDIX A

Table 4

Form 1, Rank of Factors Affecting Initiation of Middle School
School Districts Planning Middle Schools

Item and Category	N	Mean Rank
9. Problems expected solved		
More classrooms	25	1.7
Curricular reorganization	24	2.3
Criticisms junior high	18	2.7
Restore four-year high school	17	3.3
Racial integration	11	4.4
Other	4	2.3
10. General predisposing factors		
Overcrowding	19	1.5
Curriculum reorganization	23	2.3
Rapid growth	15	2.8
Social reorganization	14	3.1
District reorganization	11	3.3
Racial imbalance	6	5.0
Other	2	1.0
11. Particular predisposing factors		
Middle school rationale	24	1.5
Criticisms junior high	16	2.4
Middle school communication	14	2.6
Restore four-year high school	9	3.2
Other	4	1.2
12. Alternative grade organization		
4-4-4	15	1.3
5-3-4	10	1.9
6-3-3	7	1.9
6-6	3	3.3
Other	7	1.1
13. Precipitating event		
Population growth	18	1.4
Strong personality	8	2.0
Replace old building	11	2.2
Racial plan	4	3.2
Other	8	1.3

APPENDIX A

Table 4 (continued)

Item and Category	N	Mean Rank
14. Principal hindrance		
Lack of funds	9	1.3
Size of school	8	2.4
Facilities	7	2.7
Lack teacher preparation	7	2.7
Antagonism M.S. concept	6	3.2
Other	7	unrated

APPENDIX A

Table 5 *

Results, Form 2, Operating Middle Schools
Characteristics of Middle Schools

Item and Category	N	Per Cent
1. Separate building	65	
Yes	59	91
No	3	5
Mixed	2	3
2. Special building	64	
Yes	24	38
No	40	62
3. Other grades	65	
Yes	35	54
No	30	46
4. Departmentalized	64	
Social Science	53	83
Science	57	89
Mathematics	57	89
Language Arts	54	84
Guidance	32	50
Other	28	44
5. Curriculum revised	64	
Partially	35	55
No	1	1
Yes	28	44
6. Team planning for instruction	64	
Social Science	44	69
Science	41	64
Mathematics	38	59
Language Arts	45	70
Other	32	50

*Questions 9, 12, 13, 18, 19, 20, 22, 23 and 25 were not suitable for presentation in this table. Results are presented in the text.

APPENDIX A

Table 5 (continued)

Item and Category	N	Per Cent
7. Practices used	64	
Carnegie unit	5	8
Self-contained classroom	18	28
Interscholastic athletics	30	47
Intramural program	54	84
Subject grades	55	86
Standard achievement tests	60	94
Attitude and interests tests	38	59
Other progress reports	32	50
8. In-service teacher training	64	
Workshops	50	78
Consultants	39	61
Visitations	46	72
Other	14	22
9.*		
10. Audio tape	64	
Science	34	53
Lanaguage Arts	47	73
Mathematics	27	42
Social Science	49	77
Other	23	36
TV tape	64	
Science	20	31
Language Arts	20	31
Mathematics	12	19
Social Science	22	34
Other	10	16
11. Guidance Services	64	
Individual counseling	64	100
Parent counseling	54	84
Group therapy	37	58
12.*		
13.*		
14. Grade first ride buses	64	
K-4	63	93
Grade 5	3	4
Grade 6	1	1
Grade 7	1	1

APPENDIX A

Table 5 (continued)

Item and Category	N	Per Cent
15. Evaluation pupil development	64	
None	24	38
Attitudes toward courses	32	50
Attitudes toward school	31	48
Attitudes toward college study	9	14
Attitudes toward teachers	24	38
Change in self-concept	23	36
Sociometry	20	31
Motivation to learn	18	28
Personality development	17	27
16. Programmed materials used	64	
Science	21	33
Social Science	13	20
Mathematics	23	36
Language Arts	25	39
Other	9	14
17. Practices used before middle school	64	
Nongraded curricula	9	14
Flexible scheduling	8	13
Laboratory classroom	25	39
In-service training	58	91
Curriculum development	52	81
Emphasis pupil development	40	63
Teacher-pupil conference	45	70
Guidance services	54	84
Other	2	3
Now in middle school		
Nongraded curricula	13	20
Flexible scheduling	48	75
Laboratory classroom	51	80
In-service training	61	95
Curriculum development	57	89
Emphasis pupil development	55	86
Teacher-pupil conference	54	84
Guidance services	62	97
Other	11	17
18.*		
19.*		
20.*		

APPENDIX A

Table 5 (continued)

Item and Category	N	Per Cent
21. Student activities program	64	
Activities clubs	61	95
Student-managed enterprises	42	66
Photography	25	39
Creative writing	33	52
Acting	42	66
Other	34	53
22.*		
23.*		
24. Pupil progress	64	
Grade-to-grade promotion	60	94
Ungraded organization	9	14
Other	3	5
25.*		

APPENDEX A

Table 6

Results, Form 2, Operating Middle Schools
Rank of Acceptance of Middle Schools

Category	N	Mean Rank
Parents	65	1.7
Middle school children	67	1.5
Faculty	66	1.5
School board	65	1.5
Own opinion	63	2.2

APPENDIX A

Table 7 *

Results, Form 2, Planning Middle Schools
Characteristics of Middle Schools

Item and Category	N	Per Cent
1. Separate building	22	
Yes	20	91
No	0	0
Mixed	2	9
2. Special building	22	
Yes	18	82
No	4	18
3. Other grades	21	
Yes	5	24
No	16	76
4. Departmentalized	22	
Social Science	15	68
Science	15	68
Mathematics	15	68
Language Arts	14	64
Guidance	9	41
Other	5	22
5. Curriculum revised	20	
Partially	10	50
No	0	0
Yes	10	50
6. Team planning for instruction	22	
Social Science	17	77
Science	17	77
Mathematics	17	77
Language Arts	17	77
Other	6	27

*Questions 9, 12, 13, 18, 19, 20, 22, 23 and 25 were not suitable for presentation in this table. Results are presented in the text.

APPENDIX A

Table 7 (continued)

Item and Category		N	Per Cent
7.	Practices used	22	
	Carnegie unit	2	9
	Self-contained classroom	10	45
	Interscholastic athletics	8	36
	Intramural program	20	91
	Subject grades	14	64
	Standard achievement tests	19	86
	Attitude and interest tests	14	64
	Other progress reports	18	82
8.	In-service teacher training	22	
	Workshops	14	64
	Consultants	12	55
	Visitations	13	59
	Other	4	18
9.*			
10.	Audio tape	22	
	Science	7	32
	Language Arts	10	45
	Mathematics	6	27
	Social Science	7	32
	Other	5	23
	TV tape	22	
	Science	9	41
	Language Arts	9	41
	Mathematics	8	36
	Social Science	9	41
	Other	3	14
11.	Guidance services	22	
	Individual counseling	20	91
	Parent counseling	18	82
	Group therapy	13	59
12.*			
13.*			
14.	Grade first ride buses	21	
	K-4	21	100

APPENDIX A

Table 7 (continued)

Item and Category	N	Per Cent
15. Evaluation pupil development	22	
None	3	14
Attitudes toward courses	8	36
Attitudes toward school	7	32
Attitudes toward college study	1	5
Attitudes toward teachers	7	32
Change in self-concept	4	18
Sociometry	4	18
Motivation to learn	3	14
Personality development	5	23
16. Programmed materials used	22	
Science		
Social Science		
Mathematics		
Language Arts		
Other	2	9
	1	5
17. Practices used before middle school	22	
Nongraded curricula	3	14
Flexible scheduling	4	18
Laboratory classroom	9	41
In-service training	17	77
Curriculum development	17	77
Emphasis pupil development	15	68
Teacher-pupil conferences	12	55
Guidance services	16	73
Other	0	0
Now in middle school		
Nongraded curricula	3	14
Flexible scheduling	10	45
Laboratory classroom	11	50
In-service training	12	55
Curriculum development	15	68
Emphasis pupil development	13	59
Teacher-pupil conferences	13	59
Guidance services	14	64
Other	1	5
18.*		
19.*		
20.*		

APPENDIX A

Table 7 (continued)

Item and Category	N	Per Cent
21. Student activities program	22	
Activities clubs	17	77
Student-managed enterprises	9	41
Photography	6	27
Creative writing	8	36
Acting	13	59
Other	3	14
22.*		
23.*		
24. Pupil progress	20	
Grade-to-grade promotion	13	65
Ungraded organization	6	30
Other	1	5
25.*		

APPENDIX A

Table 8

Results, Form 2, Planning Middle Schools
Rank of Acceptance of Middle Schools

Category	N	Mean Rank
Parents	13	2.2
Middle school children	13	1.9
Faculty	13	2.4
School board	14	1.7
Own opinion	14	1.3

APPENDIX B

QUESTIONS FOR INTERVIEW

1. Has the middle school been fully implemented at this time?

_____Yes _____No

2. What is the principal feature of the middle school?

_____grade organization change _____individualization

_____departmentalization _____other (specify)

_____curriculum change

3. Has the principal feature of the middle school been implemented?

_____Yes _____No

4. Does the middle school meet the needs for which it was planned?

_____Yes _____No

5. Does the middle school cope effectively with the following areas?

_____ethnic imbalance

_____facilities

_____curriculum based upon growth and development of children

_____other

6. What feature of the prior grade arrangements needed to be changed the most, in the opinion of the school board when they decided upon the middle school? Rank in importance.

_____increased space

_____quality of facilities

_____curriculum

_____grade organization

_____teacher methods

_____other

APPENDIX B

Pennsylvania Department of Education
Bureau of Educational Research

Middle School Form 1
The Organization of the Middle School

GENERAL INSTRUCTIONS: Please complete one separate copy of the enclosed questionnaires for each middle school in your district and return the copy to Applied Research, Bureau of Educational Research, Box 911, Harrisburg, Pa. 17126. The due date is September 30, 1970.

Please check the parts of the following questions that apply to the middle school of your district.

1. In what school year did planning begin?

_____1966-67 _____1969-70

_____1967-68 _____1970-71

_____1968-69 _____Other

2. In what school year did operation begin?

_____1966-67 _____1969-70

_____1967-68 _____1970-71

_____1968-69 _____Other

3. What grade levels are included?

_____Grade 4 _____Grade 6 _____Grade 8

_____Grade 5 _____Grade 7 _____Grade 9

4. What is the name of the publication and its author that stimulated development of the middle school?

_____None

_____Publication _____Author

5. What group(s) furnished the chief impetus for developing a middle school?

_____school board _____administrators

_____teachers _____other (specify)_____

6. What event stimulated development of a middle school?

_____None

_____Speech _____Name

_____Personal recommendation _____Name

_____Study report _____Name

_____Other (specify) _____Name

7. What is the name and title of the person who was most influential in the decision of the school board to implement a middle school?

_____None

_____Name _____Title

8. What is the name of the publication and/or study that influenced development of the middle school program?

_____None _____None

_____Publication _____Study

Please rank the factors in each of the following questions in order of their importance; write 1 for the most important and 2, 3 or 4 for factors that are less important.

9. What are the problems of the school district that were expected to be solved by the middle school? Rank each factor.

_____need for more classrooms

_____need to restore four-year high school

_____need to meet criticisms of junior high school

_____need for plan of racial integration

_____need for curricular reorganization

_____other (specify) _____

10. What were the predisposing factors to organization of the middle school? Rank your answers.

_____rapid growth _____need for social reorganization

_____overcrowding _____desire for curriculum reorganization

_____district reorganization _____racial imbalance

_____other (specify) _____

11. What were the predisposing factors to organize your particular middle school? Please rank your answers.

_____a communication on the middle school

_____appeal of a middle school rationale

_____criticisms of junior high school

_____pressure to retore four-year high school

_____other (specify) _____

12. What alternative grade organization did you consider for the school district? Please rank your answer.

_____4-4-4 _____6-6

_____5-3-4 _____other (specify) _____

_____6-3-3

13. What event produced the decision by the school board for a middle school? Please rank your answer.

_____need to replace obsolete building

_____population growth

_____influence of a strong personality

_____part of a racial plan

_____other (specify) _____

14. Which factor hindered the development of the middle school the most? Rank each factor.

_____lack of funds

_____size of school (specify size) _____

_____lack of teacher preparation

_____physical facilities (specify hindrance) _____

_____antagonism to concept of middle school

_____other (specify) _____

_____Signature

_____Title

APPENDIX B

Pennsylvania Department of Education
Bureau of Educational Research

Middle School Form 2
Characteristics of the Middle School

Please check the parts of the following questions that apply to the middle school of your district.

1. Is the middle school housed in a separate building?

_____Yes _____No _____Mixed

2. Is the building especially designed and built for the middle school?

_____Yes _____No

3. Did the building previously house grades other than those now housed in the middle school?

_____Yes _____No

4. Is the program departmentalized (vs. self-contained classrooms) in any of the following areas?

_____Social Science _____Language Arts

_____Science _____Guidance

_____Mathematics _____Other (specify) _____

5. Was the curriculum revised before the operation began?

_____Partially _____No _____Yes

6. In what part of the curriculum is there team planning for instruction?

_____Social Science _____Grade(s)

_____Science _____Grade(s)

_____Mathematics _____Grade(s)

_____Language Arts _____Grade(s)

_____Other _____Grade(s)

7. Does the middle school use any of the following practices?

_____Carnegie Unit

_____Self-contained classroom

_____Interscholastic athletics

_____Intramural program

_____Subject grades (A,B,C,etc.)

_____Standardized achievement tests

_____Attitude and interest tests

_____Other reports of pupil progress (checklists, anecdotal reports,etc.)

8. What kind and how much in-service teacher training preceded operation?

_____Workshops _____Hours

_____Consultants _____Hours

_____Visitations _____Hours

_____Other _____Hours

9. Please name or identify special instructional facilities, e.g., learning laboratory.

_____

10. Do teachers use audio or TV tape in the regular program to present lectures or information to students?

Audio	TV
_____Science	_____
_____Language Arts	_____
_____Mathematics	_____
_____Social Science	_____
_____Other	_____

11. What guidance services are provided to pupils?

_____Individual counseling

_____Parent counseling

_____Group therapy

12. How much preparation time is scheduled per day for middle school teachers? (i.e., separate from other duties like grading papers)

_____Minutes

13. How much time per week do supervisory personnel spend in observation and evaluation of teacher performance in the classroom?

_____Minutes

14. In what grades do elementary children in your district first ride buses?

_____Grades K-4 _____Grade 6

_____Grade 5 _____Grade 7

15. Are any of the following areas of pupil development evaluated?

	Instrument Used
_____None	
_____Attitudes toward courses	_____
_____Attitudes toward school	_____
_____Attitudes toward study in college	_____
_____Attitudes toward teachers	_____
_____Change in self-concept	_____
_____Sociometry (social relations)	_____
_____Motivation to learn	_____
_____Personality development	_____

16. In what grades are programmed instructional materials used in the regular program?

Science _____Grade(s) Mathematics _____Grade(s)

Social Science _____Grade(s) Language Arts _____Grade(s)

Other _____Grade(s)

17. Were any of the following practices used in the involved grades of your school district? Are they used now?

Before the middle school		Now in the middle school
_____	Nongraded curricula	_____
_____	Flexible scheduling	_____
_____	Laboratory classroom	_____
_____	In-service training	_____
_____	Curriculum development	_____
_____	Emphasis on pupil development	_____
_____	Teacher-pupil conference	_____
_____	Guidance services	_____
_____	Other	_____

18. How many hours of the in-service training were provided for middle school administrators?

_____Hours

19. What is the guidance counselor-student ratio for the middle school?

_____

20. What elementary grades were served by a guidance counselor prior to middle school? What was the counselor-student ratio?

_____Grades _____Ratio

21. Is there a student activities program for middle school pupils?

_____Activities clubs _____Creative writing

_____Student-managed enterprises _____Acting

_____Photography _____Other

22. What are the most successful features of the middle school as a whole?

_____

_____

_____

23. What are the most difficult problems? Please rank them.

_____

_____

_____

24. How is the middle school organized for pupil progress through the curriculum?

_____Grade-to-grade promotion

_____Ungraded organization

_____Other (specify) _____

25. What change(s) did you try out and abandon because it seemed impracticable?

_____

Now that the school board of your district has decided to implement a middle school, you have had experiences with the project. You may have had opportunities to observe the degree of acceptance by the community of the middle school as far as it has gone. Please check your opinion in the following questions.

26. In your opinion, what is the acceptance of the middle school by parents?

_____Strongly approve

_____Approve

_____Uncertain

_____Disapprove

_____Strongly disapprove

27. What is the acceptance of the middle school by middle school children?

_____Strongly approve

_____Approve

_____Uncertain

_____Disapprove

_____Strongly disapprove

28. What is the acceptance of the middle school by faculty?

_____Strongly approve

_____Approve

_____Uncertain

_____Disapprove

_____Strongly disapprove

29. What is the acceptance of the middle school by the school board?

_____Strongly approve

_____Approve

_____Uncertain

_____Disapprove

_____Strongly disapprove

30. What is your opinion of the middle school of your district?

_____Strongly approve

_____Approve

_____Uncertain

_____Disapprove

_____Strongly disapprove

_____Signature

_____Title